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| 10/029,812 | 12/27/2001 | Sylvie Jeannin | US 010717 | 5510 |

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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BRIARCLIFF MANOR, NY 10510

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| EXAMINER |
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ZHAO, DAQUAN

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| ART UNIT | PAPER NUMBER |
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2621

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 04/19/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/029,812

Applicant(s)

JEANNIN, SYLVIE

Examiner

Daquan Zhao

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/2007 has been entered.

Response to Arguments

2. Applicant's arguments filed 3/28/2007 have been fully considered but they are not persuasive.

On page 10-14 of the Remarks, applicant argues there is no teaching or suggestion in Dimitrova et al and Christopher for detecting a separator which is defined by detecting at least two consecutive scene changes.

In responses, the examiner interprets "detecting at least two consecutive scene changes" as detecting black frames, Dimitrova et al teach, in column 8, lines 7-15, a Black Frame/ Unicolor Frame Detector to detect the black frame or unicolor frame. The black or unicolor frame (or frameses) between commercials is referred to as a black scene or a unicolor scene. In the Merriam-Webster dictionary, the broadest meaning of the word "scene" is a sequence in a motion play or motion picture, and it is reasonable to interpret a sequence of black or unicolor frame (frames) as a scene. "Two consecutive

scene changes" is corresponding to the black frame, or black frames or black scene in between two commercials or in between a television program and a following commercial since the first commercial or the television program to the black scene is a scene change, and the black scene to the following commercial is the second consecutive scene change.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. ***Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Suito et al (US 7,079,751 B2).***

Regarding claim 20, Suito et al teach an apparatus for detecting a commercial in a video stream, comprising a detector configured to detect the commercial by detecting at least two consecutive scene changes in the video stream (e.g. figure 8, column 6, lines 1-25, also column 5, lines 4-60, frames 2 and 452 are tow consecutive scene changes).

Art Unit: 2621

7/15
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13-18, and 20
4. Claims 1-11, ~~13-20~~ are rejected under 35 U.S.C. 102(e) as being anticipated by Dimitrova et al (US 6,714,594 B2).

Regarding claim 20, Dimitrova et al teach an apparatus for detecting a commercial in a video stream, comprising a detector configured to detect the commercial by detecting at least two consecutive scene changes in the video stream (e.g. column 8, lines 7-14, and column 11, lines 44- column 12, line 14, detecting at least two consecutive scene changes in the video stream corresponding to detecting the black frames).

Regarding claim 1, Dimitrova et al teach teach a method for detecting commercials in a compressed video stream, the method comprising the acts of:

- compressing video data and generating compressed video data (e.g. Fig. 1, MPEG encoder 100, column 5, lines 9-15);
- detecting a plurality of separators based on said generated compressed video data, each of said separators is defined by at least two consecutive scene changes (e.g. column 8, lines 7-14, and column 11, lines 44- column 12, line 14, detecting at least two consecutive scene changes in the video stream corresponding to detecting the black frames; the separators are corresponding to the black frames).
- determining the beginning and ending of commercial break among said plurality of separators by comparing a gap between said plurality of separators (e.g. abstracts, and column 11, line 44-59, and column 12, line 15-28).

Claim 7 is rejected for the same reasons as discussed in claim 1 above and further limitation recited:

- Identifying one of said separators as the beginning of a commercial break when the gap between said one separator and a previous separator is greater than a predetermined threshold value (e.g. column 11, line 44 – column 12, line 23-26).
- Identifying one of said separators as the ending of the commercial break when the gap between said one separator and a next separator is greater than said predetermined threshold value (e.g. column 11, line 44 – column 12, line 23-26).

Regarding claim 10, Dimitrova et al teach an apparatus for detecting commercials in a compressed video stream, comprising:

- A video encoder for receiving uncompressed video data and generating compressed video data (e.g. figure 1, MPEG encoder 100, column 5, line 8-15);
- A detector for detecting a plurality of separators in said compressed video data (e.g. column 6, line 50-53, scene change detector);
- A processor configured to edit said compressed video data by identifying the beginning and ending of a commercial break in said compressed video data (e.g. figure 1, content analyzer 120, column 5, line 48-61, marker result from content analyzer 120 for playback selector 130 to skip commercial); and

- A playback selector for editing said compression video data to skip said commercial break for a subsequent viewing (e.g. figure 1, playback selector 130, column 5, line 56-60).

Regarding claim 2, Dimitrova et al teach identifying one of said separators as the beginning of a commercial break when the gap between said one separator and a previous separator is greater than a predetermined threshold value (e.g. column 11, line 44 – column 12, line 23-26).

Regarding claim 3, Dimitrova et al teach Identifying one of said separators as the ending of the commercial break when the gap between said one separator and a next separator is greater than said predetermined threshold value (e.g. column 11, line 44 – column 12, line 23-26).

Regarding claims 4 and 8, Dimitrova et al teach plurality of separators is inserted into said video data at a transmitting source (e.g. column 8, lines 6-14).

Regarding claim 5, Dimitrova et al teach detecting said plurality of separators in said compressed video data includes identifying an abrupt increase in an average Mean Absolute Difference (MAD) value of said generated compressed video data (e.g. column 4, line 28-30).

Regarding claims 6 and 9, Dimitrova et al teach detecting said plurality of separators in said compressed video data is performed based on an increasing an average Mean Absolute Difference (MAD) value of said generated compressed video data (e.g. column 6, 35-44).

Regarding claim 11, Dimitrova et al teach a memory for storing said compressed video data with the identification of the beginning and ending of said commercial break (e.g. figure 1, data store 110).

Regarding claim 13, Dimitrova et al teach compressed video data includes an identifier of a presence of sequence of unicolor frames (e.g. column 8 line 10-12).

Regarding claim 14, Dimitrova et al teach Compressed video data includes an identifier of a transition between a television program and said commercial break (e.g. column 9, table I, and column 10, line1-6).

Regarding claim 15, Dimitrova et al teach compressed video data includes an identifier of a transition between the successive commercial programs (e.g. column 8, line 10-13, "commercials").

Regarding claim 16, Dimitrova et al teach compressed video includes an identifier of at least two successive scene cuts (e.g. column 11, line 65-67, series of black frames).

Regarding claim 17, Dimitrova et al teach detector detects said plurality of separators based on an abrupt change in an average Mean Absolute Difference (MAD) value of said generated compressed video data (e.g. column 6, line 45-53).

Regarding claim 18, Dimitrova et al teach compressed video data includes at least one of a quantizer scale, motion vector data, bit rate data, a variation of luminance within a frame, a variation of color within a frame, a total luminance of a frame, a total color of a frame, change in luminance between frames, a mean absolute difference, and a quantizer scale (column 5, line 20-34).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dimitrova et al (US 6,714,594) as applied to claims 1-11, 13-20 above, and further in view of Christopher (WO 01/35409 A2).

See the teaching of Dimitrova et al above.

For claim 12, Dimitrova et al fail to specify a decoder for generating decompressed video data. Christopher teaches a decoder for generating decompressed video data (e.g. figure 1, Packet Video Decoder 178, and page 7, line 22-23). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Christopher into the teaching of Dimitrova et al to eliminate commercial of the decompressed video stream from the recording to decrease the cost and increase the sales (Christopher, page 2, line 15-18).

For claim 19, Dimitrova et al teach a processor is programmed to identify an indicator of at least two scene cuts video data and to generate an identifier of the location in a sequence of said compressed video data coinciding with said indicator of at least two said scene cuts (e.g. column 11, line 65-67, series of black frames).

Art Unit: 2621

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **Ohta et al (US 6,449,021 B1); Inoue et al (US 7,031,385 B1); lee et al (US 5,617,149); Suito et al (US 2002/0054242 A1, US 6,937,658 B1; 2002/0015574 A1, US 6,459,735 B1);**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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